IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:	Wenting Tang et al.	§	Art Unit:	2157
Serial No.:	09/880,631	§	Examiner:	Gregory G. Todd
Filed:	June 12, 2001	§		
For:	Method and System for a Modular Transmission Control Protocol (TCP) Rare-Handoff Design in a Streams Based Transmission Control Protocol/Internet Protocol (TCP/IP) Implementation	§	Atty. Dkt. No.:	10010812-1 (HPC.0675US)

Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

RESPONSE TO NOTIFICATION OF NON-COMPLIANT APPEAL BRIEF

Dear Sir:

The Notification of Non-Compliant Appeal Brief objected to the Summary of the Claimed Subject Matter section.

Attached herewith is an Amended Summary of Claimed Subject Matter that separately identifies each independent claim (claims 1, 11, and 26), with reference made to the Specification by page and line number, and to the drawings.

As requested by the Notification, only the Summary of the Claimed Subject Matter section is submitted in response to this Notification.

Date of Deposit: December 22, 2008

I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent Office (Fax No. (571) 273-8300) on the date indicated above.

Ginger Yount

RECEIVED
CENTRAL FAX CENTER
DEC 22 2008

No fees are believed to be due with this Response. However, should fees be required, charge Deposit Account No. 08-2025.

Respectfully submitted,

Date: 12-22-2008

Dan C. Hu
Registration No. 40,025
TROP, PRUNER & HU, P.C.
1616 South Voss Road, Suite 750
Houston, TX 77057-2631
Telephone: (713) 468-8880
Facsimile: (713) 468-8883

RECEIVED
CENTRAL FAX CENTER
DEC 22 2008

I. SUMMARY OF THE CLAIMED SUBJECT MATTER

The following provides a concise explanation of the subject matter defined in each of the independent claims involved in the appeal, referring to the specification by page and line number and to the drawings by reference characters, as required by 37 C.F.R. § 41.37(c)(1)(v). Each element of the claims is identified by a corresponding reference to the specification and drawings where applicable. Note that the citation to passages in the specification and drawings for each claim element does not imply that the limitations from the specification and drawings should be read into the corresponding claim element.

Independent claim 1 recites in a communication network, a method of TCP state migration comprising the steps of:

a) establishing a TCP/IP communication session between a client computer (*e.g.*, client 410 of Fig. 4) and a first server computer (*e.g.*, server 450 of Fig. 4), said first server computer part of a plurality of server computers forming a web cluster containing information (*e.g.*, web cluster 490 of Fig. 4), said communication session established for the transfer of data contained within said information (*see* p. 22, line 22-p. 23, line 19, of Specification);

b) handing off said communication session to a selected server computer (*e.g.*, server 452 of Fig. 4, and *see* p. 23, lines 9-13 of the Specification) from said first server computer over a persistent control channel using TCP handoff modules (*e.g.*, Upper TCP module 522 and Bottom TCP module 524 of Fig. 5C, and *see* p. 8, line 25-p. 11, line 6, and p. 29, line 27-p. 30, line 6 of the Specification) that are dynamically loadable (*see* p. 17, line 24-p. 18, line 15 of the Specification) within TCP/IP stacks in operating systems located at both said first server computer and said selected server computer, that implement a TCP handoff protocol that works within kernel levels of an existing TCP/IP protocol (*see* p. 23, line 21-p. 26, line 29 of the Specification); and

c) migrating a first TCP state of said first server computer to said selected server computer, and a second TCP state of said selected server computer to said first server computer over said control channel (*e.g.*, p. 10, line 26-p. 11, line 28 of the Specification).

Independent claim 11 recites in a communication network, a method of TCP state migration comprising the steps of:

a) establishing a TCP/IP communication session between a client computer (*e.g.*, client 410 of Fig. 4) and a first server computer (*e.g.*, server 450 of Fig. 4), said first server computer part of a plurality of server computers forming a web cluster containing information (*e.g.*, web cluster 490 of Fig. 4), said communication session established for the transfer of data contained within said information;

b) monitoring traffic associated with establishing said TCP/IP communication session to understand a first initial TCP state of said first server computer associated with said TCP/IP communication session, at a first bottom-TCP (BTCP) module at said first server computer (Bottom TCP module 524 of Fig. 5 and BTCP module 830 of Fig. 8, and *see* p. 9, lines 16-20 and p. 11, lines 8-11 of the Specification);

c) receiving a web request associated with said TCP/IP communication session at said first BTCP module at said first server computer (block 910 of Fig. 9 and block 1310 of Fig. 13, and *see* p. 10, lines 7-8 of the Specification);

d) examining content of said web request (*see* p. 10, lines 8-10);

e) determining which of said plurality of server computers, a selected server computer, can best process said web request, based on said content (block 930 of Fig. 9, and *see* p. 10, lines 13-16 of the Specification);

f) handing off said communication session to said selected server computer (*e.g.*, server 452 of Fig. 4) from said first server computer over a persistent control channel, if said selected server computer is not said first server computer (*see* p. 10, line 26-p. 11, line 28, and p. 23, lines 9-13 of the Specification);

g) monitoring traffic associated with handing off said TCP/IP communication session to understand a second initial TCP state of said selected server computer associated with said TCP/IP communication session, at a second BTCP module at said selected server computer (*e.g.*, BTCP module 870 of Fig. 8, and *see* p. 12, lines 1-13 of the Specification);

h) migrating said first initial TCP state to said selected server computer over said control channel, such that said second BTCP module can calculate a first TCP state for said first server computer in said TCP/IP communication session (*e.g.*, p. 12, line 15-p. 13, line 8 of the Specification);

i) sending a second initial TCP state of said selected server computer to said first BTCP module (*e.g.*, BTCP module 830 of Fig. 8), such that said first BTCP module can calculate a second TCP state for said selected server computer in said TCP/IP communication session;

j) forwarding data packets received at said first BTCP module from said client to said selected server computer, by changing said data packets to reflect said second TCP state and a second IP address of said selected server computer (*e.g.*, block 1320 of Fig. 13, and *see* p. 12, line 15-p. 13, line 8 of the Specification);

k) sending response packets from said selected server computer directly to said client computer (*see* Figs. 3 and 4) by changing said response packets to reflect said first TCP state and a first IP address of said first server computer (*e.g.*, block 1440 of Fig. 14, and *see* p. 12, line 15-p. 13, line 8 of the Specification);

l) terminating said TCP/IP communication session at said first server computer when said TCP/IP communication session is closed (*e.g.*, p. 13, lines 10-19).

Independent claim 26 recites a server computer comprising:

an upper TCP (UTCP) module (*e.g.*, UTCP module 522 of Fig. 5C, and UTCP modules 810 and 850 of Fig. 8) located above a TCP module (*e.g.*, TCP module 520 of Figs. 5B and 5C, and TCP modules 820 and 860 in Fig. 8) in an operating system of said server computer;

a bottom TCP (BTCP) module (*e.g.*, BTCP module 524 of Fig. 5C, and BTCP modules 830 and 870 of Fig. 8) located below said TCP module, said UTCP, TCP, and BTCP modules implementing a method of handing off a communication session between a first node (*e.g.*, server 450 of Fig. 4, and "front-end" node of Fig. 8) and second node (*e.g.*, server 452 of Fig. 4, and "back-end" node of Fig. 8) in a cluster network (*e.g.*, cluster 490 of Fig. 4) that works within the kernel level of an existing TCP/IP protocol, by migrating TCP states associated with said first and second nodes (*see* p. 10, line 26-p. 12, line 13 of the Specification).